

Kentucky Department of Education
Science Adoption 2008-2014

Provided by the Publisher

ISBN - 9781929877003		Publisher - It's About Time, Herff Jones Education Division	
Astrobiology Student Edition			
Type - P1	Author - Asbell-Clarke, Jodi E. et al		
Copyright - 2005	Edition - 1st	Readability -	1090
Course - Integrated Science		Grade(s) -	9, 10, 11, 12
Teacher Edition ISBN if applicable		9781585915347	

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Overall Recommendation:

☒ **Recommended as Basal**

Overall Strengths, Weaknesses, Comments:

Designed for a course specific to Astrobiology, the text requires the teacher be very familiar with the topics covered. The text is biology set in the context of astronomy. The text provides abundant opportunities for an inquiry approach to this topic. The Reviewed materials did not include an instructor's manual. This text could be used as a supplemental text for a biology or Earth/Space course in addition.

CRITERIA

This basal resource ...

A. Encompasses KY Content Standards & Grade Level Expectations

☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

☒ Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 7 Big Ideas of science to the following extent:

- | | |
|---|---|
| a) Structure and Transformation of Matter | <input type="checkbox"/> Strong <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Little <input type="checkbox"/> N/A |
| b) Motion and Forces | <input type="checkbox"/> Strong <input type="checkbox"/> Moderate <input type="checkbox"/> Little <input checked="" type="checkbox"/> N/A |
| c) The Earth and the Universe | <input type="checkbox"/> Strong <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Little <input type="checkbox"/> N/A |
| d) Unity and Diversity | <input type="checkbox"/> Strong <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Little <input type="checkbox"/> N/A |
| e) Biological Change | <input type="checkbox"/> Strong <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Little <input type="checkbox"/> N/A |
| f) Energy Transformation | <input type="checkbox"/> Strong <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Little <input type="checkbox"/> N/A |
| g) Interdependence | <input type="checkbox"/> Strong <input type="checkbox"/> Moderate <input type="checkbox"/> Little <input checked="" type="checkbox"/> N/A |

2) Addresses content-specific enduring understandings from the related Program of Studies standards.

☐ Strong ☒ Moderate ☐ Little ☐ N/A

3) Addresses content-specific skills and concepts from

☒ Strong ☐ Moderate ☐ Little ☐ N/A

the related Program of Studies standards.

4) Content addressed is current, relevant and non-trivial ☒ Strong ☐ Moderate ☐ Little ☐ N/A

5) Provides opportunities for critical thinking/reasoning ☒ Strong ☐ Moderate ☐ Little ☐ N/A

6) Strengths, Weaknesses, Comments:

- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

The text is not broad in spectrum, but the content addressed is covered in depth. The text is well suited for use in an elective course that would be narrow in scope. The teacher's guide does include an alignment to national standards.

B. Functionality & Suitability

☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

1) Suitability ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) Content quality ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community

3) Connections to Literacy

Note: may apply to either student or teacher editions

☐ Strong ☐ Moderate ☒ Little

- Employs a variety of reading levels and is grade/level appropriate
- Contains pre, during, post reading activities
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- Engaging text- does the text facilitate learning?
- Does understanding the text require having performed the imbedded activities?

4) Connections to Technology ☐ Strong ☐ Moderate ☒ Little

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data

5) Support for Diverse Learners

☐ Strong ☐ Moderate ☒ Little

- Provides support for ESL students
 - Provides support for differentiation of instruction in diverse classrooms
- Note: may apply only to teacher edition*

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The text is a book based around activities with a small amount reading with each unit. This text is suitable for a true inquiry approach to the physical sciences. This approach allows students to develop and master concepts in a hands-on manner. There is no apparent support for ELL students.

C. Supports Inquiry and Skill Development

☒ **Strong Evidence**
☐ **Moderate Evidence**
☐ **Little or No Evidence**

1) Promotes Inquiry, research and Application of Learning

☒ Strong ☐ Moderate ☐ Little

- Provides opportunities for inquiry and research that includes activities such as self-selecting topics, formulating authentic questions, gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions.
 - Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, etc.)
 - Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
 - Provides opportunities for application of learned concepts.
 - Uses a variety of relevant charts, graphs, diagrams, time lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
 - Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.
- Note: may apply to either teacher or student edition*

2) Skill Development

☒ Strong ☐ Moderate ☐ Little

- Provides opportunities to make sense of data
 - Provides opportunities for critical thinking and reasoning (analyze arguments, distinguish fact/opinion, recognize bias)
 - Provides opportunities to examine a range of types of evidence
 - Contains embedded activities (or extensions) that emphasize use of technology for problem solving
- Note: may apply to either teacher or student edition*

3) Strengths, Weaknesses, Comments:

The inquiry approach appears to be a fundamental foundation of the text. Being activity based, students have continual opportunities to use data in meaningful ways. The tink and reflect activities included with the activities allow students to develop and

hone their thinking and reasoning skills.

D. Supports Best Practices of Teaching and Learning

- ☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

1) Engages Students

☒ Strong ☐ Moderate ☐ Little

- Includes content geared to the needs, interests, and abilities of students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated

Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction

☐ Strong ☒ Moderate ☐ Little

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

This text requires students to be actively engaged in the learning process with activities that are tied to the content covered. The teacher's edition of the text is very teacher friendly. Each chapter has background information for teachers and small commentaries and tips that aide instruction. References to strategies for literacy, English language learners, and differentiation are nit included within the teacher edition.

E. Has an Organization/ Format that Supports Learning and Teaching

- ☒ Strong Evidence
☐ Moderate Evidence
☐ Little or No Evidence

1) Organizational Quality

☒ Strong ☐ Moderate ☐ Little

- Print and/or electronic materials present minimal barriers to learners
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives,

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space, print, type size, color) to enhance readability.

- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size

Included media are durable, easy to use and have technical merit

- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text)

☐ Strong ☐ Moderate ☐ Little

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The topics are grouped in a manner that builds continuity. There is not as much technical talk and all passages are related to the knowledge the student needs to complete the activity(s). Each chapter begins with a description of what objectives will need to be completed as a result of the upcoming activities.

F. Has available Ancillary/ Gratis Materials

Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

☐ Strong Evidence
☒ Moderate Evidence
☐ Little or No Evidence

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Limited to transparencies and blackline masters.